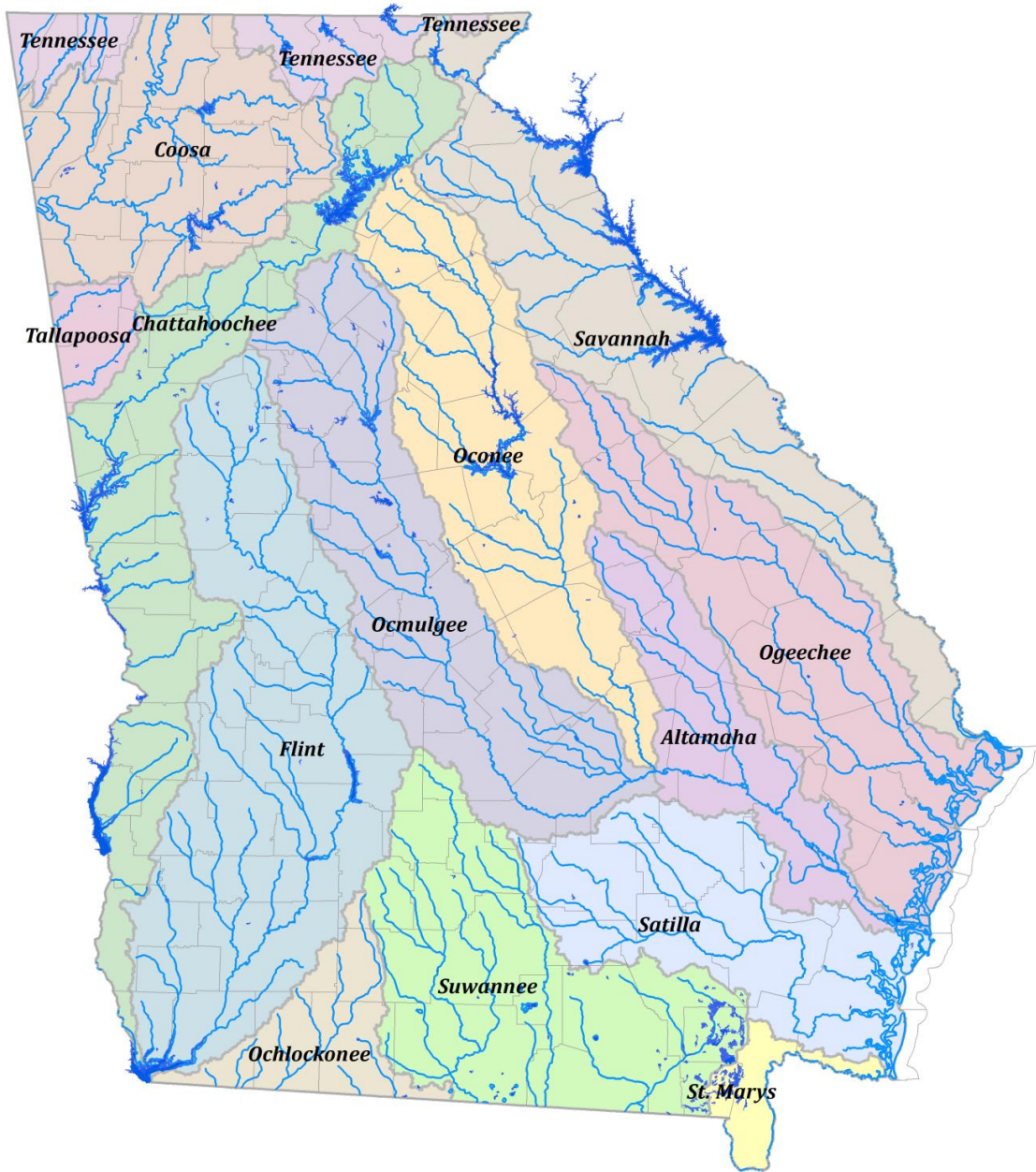


WATERSHED ASSESSMENT AND PROTECTION PLAN GUIDANCE: Watershed Protection Plans



Georgia Department of Natural Resources
Environmental Protection Division
Watershed Protection Branch

The ultimate goal of the Watershed Assessment/Watershed Protection Plan process is to provide a means of restoring and protecting the waters and associated biological communities within a permittee's watershed assessment area. The purpose of the Watershed Protection Plan (WPP) is to develop a plan that is tailored to address water quality issues identified in the Watershed Assessment (WA), and to provide tools to ensure the future protection of the water resources and biological communities.

The WPP is developed and formally adopted by the permittee, and applies to all portions of the permittee's watershed assessment area. The WPP describes watershed protection strategies that will be used by the permittee to restore and protect water quality and maintain the biological integrity of the waters within its watershed assessment area. This is accomplished primarily through the development and implementation of Best Management Practices (BMPs). The WPP should identify and adopt specific BMPs to ensure that Georgia water quality standards are met. These BMPs should be enforceable through ordinances or some other method (i.e., new development plans, stormwater management plans, green space programs, etc.). Any planned or ongoing protection efforts should be noted and coordination of these efforts is strongly encouraged. For example, local governments may also be implementing stormwater management programs to comply with their National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) discharge permits.

An important element of the Protection Plan is measuring the effectiveness of the BMPs through a long-term monitoring program. This consists primarily of annual water quality sampling and conducting bioassessments.

The WPP is referenced in a permittee's wastewater facility permit and its implementation is required as a permit condition. Annual submittals to the Georgia Environmental Protection Division (GAEPD) Watershed Planning and Monitoring Program (WPMP) are required that consist of a progress report, monitoring data, and certification that the WPP is being implemented.

The WPP is considered a "living document", and should be modified periodically to reflect land use transformations, and changes in service area and jurisdictional boundaries. Changes and/or revisions to the WPP should be noted in the annual progress report. GAEPD should be notified regarding proposed changes to the WPP. A complete update of the WPP is recommended at least every 10 years. If multiple changes or additions have been made, GAEPD may require that the WPP be updated.

The Watershed Protection Plan should consist of the following components:

I. Introduction

- A. Describe the reason the WPP is being developed by the permittee (i.e. permit requirement for new wastewater treatment facility, expansion of facility, facility capacity equal to or greater than 1 million gallons per day). Provide the permit numbers of all facilities covered under this process.
- B. Briefly discuss the purpose and ultimate goals of the Watershed Protection Plan
- C. Provide a narrative description of the permittee's watershed assessment area, which includes the sanitary sewer service area and jurisdictional boundaries. Provide maps showing these features.

II. Legal Authority

A. Political jurisdiction

1. Identify the responsible parties, which may include local governments, groups of governments, and/or pertinent authorities and organizations within the watershed, such as a watershed protection group. Include the following information for all responsible parties:

Name
Address
Telephone number
Fax number
E-mail address

This information may be presented in tabular format

2. Identify local agencies that have authority over zoning and development activities
3. Identify resources available to implement the WPP, which may include programs, funds, or personnel within the local government, or other external resources.

B. Code and Regulation Evaluation

Review and discuss applicable codes and ordinances and their enforceability in relation to the prevention and improvement of water quality issues and violations. This can include the following:

- Ordinances
- Land use plans
- New development plans
- Stormwater management plans, including Plans required by the NPDES MS4 Permit as well as any other plans developed for the area
- Water and sewer maintenance and upgrades
- Parks and recreation
- Green Space Program

III. Summary of Watershed Assessment

The Watershed Assessment is conducted in order to assemble information from a variety of sources that provides a current picture of the watershed within the permittee's watershed assessment area. A brief summary of the findings of the WA should be provided including:

- A. Based on the most the recent 305(b)/303(d) list, discussion of the presence of stream segments not meeting designated uses within the watershed assessment area or nearby vicinity. Include a discussion of potential sources of the parameter(s) which resulted in the listing. If there are no stream segments on the list, then note this fact.
- B. Discussion of water quality and biological issues identified in the Watershed Assessment.

- C. Discussion of potential point and nonpoint sources of pollutants; include a map showing clearly labeled locations of the potential sources.

IV. Best Management Practices

The primary purpose of the WPP is to provide tools for the improvement and protection of the waterbodies and associated biological communities within the permittee's watershed assessment area. These tools are in the form of BMPs that can be structural or non-structural in nature.

Discuss BMPs currently in place and provide their effectiveness in relation to water quality and biological issues identified in the WA. The permittee's current and historic efforts to manage the effects of storm water as development has occurred in the watershed assessment area should be reviewed. Identify BMPs that will be introduced or are being considered. Discuss how these BMPs will protect and/or restore water quality and biological communities in the permittee's watershed assessment area. Where water quality problems exist, new or more effective strategies should be considered. These can include, but are not limited to the following:

A. Structural BMPs

- Re-vegetation of areas
- Restoration of riparian areas and stream banks
- Retrofitting stormwater detention/retention ponds
- Controlling stormwater flow and velocity
- Septic tank maintenance and repair
- Disconnection of impervious surfaces from streams
- Green Infrastructure

B. Non-structural BMPs

- Public Awareness – used to enhance public understanding and participation in implementing the WPP
 - Stakeholder Meetings
 - Workshops
 - Continuous Education
 - Brochures
 - Pollution Prevention Guidance for specific stakeholder groups
- Outreach Programs
 - Adopt-a-Stream
 - Project WET
- Stream Walks
- Septic tank surveys maintained by county health department
- Illicit Discharge Detection & Elimination (IDDE) Program
- Operation and Maintenance Program for the MS4

C. Other Programs

In addition to WA and WPP, potential sources may be evaluated and corrective measures implemented through other programs such as Watershed-Based Plans, Section 319 (h) grants, or “Targeted Outreach” initiated by GAEPD. Many other opportunities exist for partnerships with State and Federal natural resource agencies (e.g. U.S Fish and Wildlife Service, Natural Resource Conservation Service, GA Soil and Water Conservation Commission, etc.) and colleges and/or universities. Describe other activities taking place or planned that are directed towards assessing and bringing about reductions in the specific pollutant loads to meet instream standards. Include in the discussion the corrective measures being proposed or implemented, the parties responsible for the implementation of these measures, and the expected outcome or effectiveness.

V. Long-term Monitoring Plan

The Long-term Monitoring Plan is a critical component of the WPP. It describes the water quality and biological monitoring that will be conducted annually in the watershed assessment area. This provides a means of measuring the effectiveness of BMPs, and determining if current measures are adequately improving and protecting water resources, or if further measures are required to improve instream conditions. The data obtained from the long-term monitoring provides a periodic update of the water quality and health of biological communities, and documents trends for the sampled waterbodies. This monitoring is not used for listing or delisting purposes unless it is performed under a Sampling and Quality Assurance Plan (SQAP), and the provisions outlined in the SQAP guidance document are met. The SQAP guidance can be found at GAEPD’s website (<https://epd.georgia.gov/field-investigation-quality-assurance-water-quality>).

The Long-term Monitoring Plan should include the following:

A. Purpose and Objectives of the Long-term Monitoring

B. Selection of Monitoring Sites

1. Sites selected for the long-term monitoring should build on sites sampled as part of the WA. Provide in tabular format a brief summary of the monitoring site locations information as requested in the Watershed Monitoring Plan (WMP). For sites sampled in the WA, please utilize the same site IDs. If monitoring sites have been added or dropped, please provide a discussion as to why.
2. Provide a map of the monitoring sites showing at a minimum: political boundaries; service area; stream hydrology with stream names; locations and monitoring site ID, indication which sites will be water quality monitoring sites, bioassessment sites, or both; distance scale; and north arrow indicating map orientation. Clearly indicate the above features using labels and legend.

C. Monitoring Methods and Procedures

Long-term monitoring methods and procedures and parameters to be sampled for water quality and biological monitoring should conform to Section III of the WMP

guidance document that can be obtained at <http://epd.georgia.gov/watershed-assessment-and-protection-plan-guidance-documents>.

Water quality monitoring shall be conducted annually. Three dry-weather events should be sampled, and at least one wet-weather event should be sampled. For water quality monitoring, metals (Cadmium, Copper, Lead, and Zinc) are only required to be sampled during wet-weather events. However, if one or more of the metal parameters consistently violates instream water quality standards, this parameter(s) should be sampled during each water quality sampling event. If monitoring frequencies have been modified as compared to the WA, please provide a rationale.

Long-term biological monitoring (bioassessments) shall be conducted at least twice every five years and shall not be performed in consecutive years. These shall consist of both macroinvertebrate and fish bioassessments. Metals (Cadmium, Copper, Lead, and Zinc) are required to be sampled as part of the water quality monitoring for each macroinvertebrate bioassessment event.

VI. Funding

- A. Provide cost estimates for implementing the major components of the Watershed Protection Plan. Include items such as ongoing and proposed structural and non-structural BMPs, long-term monitoring, and meeting annual reporting requirements. This information may be presented in tabular format.
- B. Discuss potential funding resources for implementation of the WPP. A variety of sources may be considered, which could include:
 - Stormwater Utility Fees
 - State Revolving Funds
 - Georgia Environmental Facilities Authority (GEFA) loans
 - Revenue bonds, general obligation bonds
 - Natural Resource Conservation Service Environmental Quality Incentives Program and Conservation Reserve Program
 - Other relevant Federal, State, local and private funds

VII. Implementation Schedule

Provide a schedule in tabular format that shows when major components of the WPP are projected to begin. Please note that once the WPP is adopted by the permittee and approved by GAEPD, implementation should begin immediately, with the exception of the Long-term Monitoring Plan, which should be initiated within six months of WPP approval. The schedule should indicate BMPs that are already in place and ongoing. The inclusion of BMPs in the implementation schedule represents a commitment by the permittee to implement the WPP.

VIII. Annual Reporting Requirements

An annual report needs to be submitted to GA EPD by the permittee each year. The annual report should summarize the BMP activities, monitoring that was performed over the previous calendar year, and certification that the plan is being implemented. Details regarding annual report requirements are provided in the *Watershed Protection Plan*

Annual Reporting Requirements guidance document, which can be obtained at: <http://epd.georgia.gov/watershed-assessment-and-protection-plan-guidance-documents>.

IX. Formal Adoption of WPP

The WPP should be submitted to the WPMP for review and comment. Once WPMP has completed their review, the permittee shall adopt the WPP and provide documentation of the adoption to GAEPD. WPMP will then approve the adopted WPP. Upon approval of the WPP, the requirement in the NDPES/LAS permit shall be satisfied.

X. Protection Plan Update

The development of the initial WPP is based on conditions within the watershed assessment area as determined in the WA. The BMPs selection and the long-term monitoring are based on those conditions. However, the characteristics of the watershed assessment area are typically not static, but change over time. This is especially true for areas experiencing high growth where transformations in land use patterns are likely.

The WPP is considered a living document, and should periodically be modified based on the changing conditions within the assessment area. Changes and/or revisions to the WPP should be noted in the annual progress report. Proposed changes to the WPP should be discussed with GAEPD before being made final. A complete update of the WPP is recommended at least every 10 years. If multiple changes or additions have been made, GAEPD may require a more extensive update to the WPP.